

## **SELF-PINNED SPIN VALVE SENSOR WITH A HIGH COERCIVITY ANTIPARALLEL (AP) PINNED LAYER**

### **ABSTRACT OF THE DISCLOSURE**

5           A magnetic head assembly has a read that includes a sensor wherein the sensor includes a self-pinned antiparallel (AP) pinned layer structure, a ferromagnetic free layer structure that has a magnetic moment that is free to rotate in response to signal fields and a spacer layer which is located between the free layer and AP pinned layer structures. The self-pinned AP pinned layer structure includes first and second antiparallel (AP) pinned layers, an  
10   antiparallel coupling (APC) layer located between and interfacing the first and second AP pinned layers wherein the second AP pinned layer is located between the first AP pinned layer and the spacer layer. The first AP pinned layer is composed of cobalt platinum chromium (CoPtCr).